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UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics — Weather Bureau

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA  
For the Week Ending Tuesday, July 5, 1938.

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau.  
Offices: Federal Office Building, Helena, Montana.

The week was characterized by almost daily showers, and cloudy, unsettled weather conditions continued in much the same manner as the preceding week. The showers varied from light to excessive intensity, and were accompanied in numerous instances by damaging hail and some local flooding. Most damaging hail, however, was confined to the central third of the State, with none reported west of the Divide..

The frequent and often heavy rains kept fields mostly too wet to work, and delayed haying and cultivation of row crops, as well as completion of summerfallowing, sheep shearing, and beet-thinning operations. Alfalfa is largely past prime condition, and cutting of the remainder of the first crop is awaiting favorable weather conditions. Very little of the crop cut so far has been stacked. Although it has been turned repeatedly, most of the hay has spoiled or greatly deteriorated in quality because of the continued rainy and cloudy conditions. It is also interfering with growth of the second crop. Such row crops as beans, beets, potatoes, and corn have been making good growth, but are in need of drying weather for cultivation and reduction of weed growth. There was little need for irrigation.

While it was somewhat cooler than normal in the southwestern part of the State, temperature, moisture, and sunshine conditions were mostly favorable for fair to good progress of crops and ranges in general. The condition of crops and ranges continued good to excellent in most sections, and further improved in those areas where some deterioration occurred as a result of early-June drought. Only northern Wibaux County reported moisture conditions as still inadequate and crop deterioration. Although some winter wheat has lodged and some has been damaged by hail and drought, the bulk of the crop is reported filling nicely, with ripening underway in the extreme western and southeastern districts. Rye in places is about ready for harvest. Spring wheat and other early sown spring grains are heading with considerable well advanced in this respect. A little loose smut has appeared in Daniels County. Truck crops and fruit are reported as doing well.

Ranges have continued green, although many grasses have headed out and some have dropped seed. There continues an abundance of grass and water for all livestock needs. Wild hay should make the biggest crop in years; in many sections grass is so abundant that hay could be cut on ranges where hardly any grass grew before. An over-abundance of needle grass is unfavorable for sheep. Livestock continue in fine condition, with a little loss reported from poisonous weeds. Spring calf roundups have been largely completed.

Wet weather was unfavorable for poisoning operations against insect pests, but at the same time helped keep them fairly well in check. Grasshoppers have attained seriously damaging numbers in a few limited areas, but for the most part have been of little concern so far this season. Webworms have caused some damage in Yellowstone County.

TEMPERATURE AND PRECIPITATION DATA, WEEK ENDING JULY 2, 1938

Station	Temperature		Sunshine % of Possible	This Week	Total Precipitation	
	Highest	Lowest			From April 1st to date	For Corresponding Period in 1937
Billings	84	55	*	0.39	10.10	6.35
Bozeman	73	42	*	1.12	9.68	7.86
Conrad	*	*	*	0.63	7.52#	4.99
Cut Bank	82	43	*	0.78	9.09	5.61
Fort Peck	84	58	*	1.60	5.95	3.07
Glendive	93	59	*	0.99	5.31	4.29
Great Falls	81	52	*	0.73	9.21#	3.85
Laurel	86	52	62	1.09	7.42	4.64
HELENA	83	47	37	1.49	8.87	3.40
Kalispell	84	46	58	0.67	3.87	4.53
Lewistown	80	46	*	2.80	11.03	4.74
Malta	84	53	*	1.52	7.69	5.50
Miles City	86	60	76	0.64	6.06	3.84
Missoula	86	52	48	0.35	6.89	3.00
Poplar	90	58	*	4.14	8.69	1.41
Stanford	*	*	*	1.43	10.58#	3.63
Average				1.27	8.00	4.42

\*No data.

# Corrected to agree with June Total.



The following summaries of Crop Conditions for the week ending July 2, 1938 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Light to heavy rains over the entire county; few cloudbursts but small damage. Crops in good shape with small loss to date due to hail; small amount first cutting alfalfa down that will be damaged by rain. Rains delayed shearing; small activity in wool the past week with sales reported on a few clips - 17¢ to 21¢. Livestock in good shape with lots of grass.

BIG HORN: General showers bordering on cloudburst proportions fell over the county during the past week, causing some damage to crops in some parts of the county. A little hail was reported in the Lodge Grass area which did quite a little damage. Some sections of the Big Horn Valley are flooded from heavy rains; otherwise the growing conditions are ideal. All small grain doing well with moisture conditions very favorable. Cultivated crops are getting weedy because of inability to cultivate. The hay crop is cut but much will be spoiled because of the delay in putting it up due to rain. Range in splendid condition. Livestock putting on fat and will be marketed early. An abundance of feed on hand for a reduced number of livestock. Plenty of labor on hand. Grasshoppers and crickets doing some damage in places but their infestation has been checked somewhat by the recent rains.

BLAINE: Local showers during the past week nearly every day. Rains from light showers to heavy rains in the northern end of the county. A total of 5.82 inches of moisture fell during the month of June. The fore part of the week was characterized by hot sultry days with moderate temperatures during the latter part. Crops exceptionally good with the exception of the acreage that was injured by the flood last week. It is anticipated that about 500 acres of sugar beets were lost due to the flood. Haying started on some farms this week but it has been delayed on account of wet weather. Livestock and range in excellent condition.

CARBON: Weather hot and sultry with daily rains accompanied by severe electrical storms. Humidity very high. Hails have caused crop damage in several localities. Very high water reported in all streams and many bridges have been washed out, some for the second time this summer. Crops most all headed out and much grain is lodging, even in the dryland areas. 75% of the first cutting of alfalfa has been very badly damaged due to weather conditions and in most cases it will be necessary to move it to make way for the second cutting. Sugar beets making wonderful growth. Range conditions excellent. In most parts of the country hay could be cut on the range lands where hardly any grass grew before. The labor situation is fair.

CASCADE: Cool, cloudy weather with light scattered showers, has continued to make ideal growing conditions for wheat, but has caused considerable delay in harvesting the first cutting of hay and has damaged quite a lot of hay which was cut before the rains of last week. Wet weather has also caused some delay in finishing up thinning of sugar beets and in getting the last of the summerfallowing done. Benefits from this type of weather however far outweigh any losses that have been sustained to date. No insect damage has resulted. Mormon crickets are under control and there is no call for grasshopper bait. Livestock are in excellent condition. Surplus of labor.

CHouteau: With ample rain in all sections and heavy cloudbursts in some, moisture conditions are the best they have been for sometime. Cool, still weather has helped to speed growth of all crops. Hay crops are abundant but rain has delayed its cutting and stacking. It appears that weeds will affect yields of wheat in many sections. Frost damage is more noticeable than earlier. Root rot damage will be small due to ample rains but might have been more destructive. Mormon cricket control work continues, new outbreaks have occurred in the Square Butte area. A few outbreaks of grasshoppers have occurred but these are under control except on range land where control is not practical.

CUSTER - POWDER RIVER: Generally warm with scattered showers and rains over the entire area. Growing conditions good. Both irrigated and dryland crops making good growth. Dryland grain in southern Custer County showing need for rain until recent showers. Winter wheat turning with spring wheat and other grains well headed. First cutting of alfalfa going in the stack with operations somewhat delayed on account of showers. Beets, potatoes and corn under irrigation excellent. Irrigation water supply ample. Range conditions remain good with plenty of grass and water for all stock. Shearing completed with delivery of wool to shipping point underway. Some restocking of cattle in Powder River County--mostly steer stuff.

DANIELS: Approximately .60 inch precipitation fell over most sections of the county during the past week. Growing conditions have been generally fair. Late seeded wheat showing good growth. Early seeded wheat is almost entirely headed out, and loose smut appearing in some fields. Considerable summerfallowing being done in some sections of the county. Livestock situation unchanged. Labor situation about the same as last week. Some grasshopper poisoning being done in county. No damage has been reported yet.



DATSON: Weather conditions cool most of the week with three rains covering most of the county. Growing conditions excellent. Crops in better shape than last week. There was slight hail damage in the Bloomfield Area. Some hay is being cut. The Southeast corner of the county reports some damage from heat the previous week. Livestock are in good condition, with plenty of water and grazing good. Labor situation, o.k. Quite a heavy infestation of small grasshoppers along the river and the southwestern part of the county, although there still is not much damage reported. Considerable bait is being spread, and a mixing crew will start next Tuesday to mix new bait. Some damage from blister beetles being reported.

FERGUS: 2.29 inches precipitation this week making a total for the month of 5.86. With sufficient moisture in all parts of the county crops are looking the best they have in several years with considerable recovery being made from frost and froth which damaged crops between June 5 and 20th. Grass headed out and much of it matured make prospects for recovery of grass very good. Some cloudbursts and hail have caused damage to a few hundred acres throughout the county in quite scattered spots. Livestock are in the best condition in many years because of having excellent grass and plenty of water. Grasshoppers not numerous but have not been reduced materially during the ten days of wet weather.

FLATHEAD: Precipitation general throughout the county the fore part of the week, with scattered showers the later part of the week. Growing conditions somewhat improved over the past two weeks. The first cutting of alfalfa is about 70% of normal. No insect damage to date. Truck crops and small fruits in good condition. The condition of range and livestock remains good.

GALLATIN: Weather cool, intermittent showers with heavy shower middle of the week. Two bad hail storms in county west and north of Bozeman, and in Amsterdam section. Fall grain is practically all headed and spring grain making good growth. Some hay loss due to heavy moisture conditions. Grasshopper poisoning underway in Three Forks area. Range conditions continue good.

GARFIELD - PETROLEUM: Showers from light to cloudburst intensity have occurred throughout the week covering both counties with varying amounts of precipitation. Sultry temperatures, sky partly cloudy. General growing conditions good. Precipitation has improved all crop conditions. Crops in scattered areas previously showing damage because of lack of moisture have generally been benefitted by showers and are now prospects for feed and some grain. Hail damage has occurred in small areas in Garfield county resulting in severe loss to early seeded grain crops, late seedings and corn in those areas will recover. Spring grains 50% headed. Corn making good advances following slow start. Livestock condition generally very good. Slight sheep loss resulted over the two counties due to floods. Ranges are ample. Range grasses continue recovery from previous years condition being benefitted greatly by recent precipitation. Flood damage to various agricultural properties in the two counties during the week will total several thousand dollars.

GLACIER: Precipitation .33 inches in Cut Bank. Severe hailstorms swept across the county last Sunday afternoon and another hail storm followed almost the same path Thursday. About 2,000 acres of wheat damaged. A few general showers occurred throughout the week with extremely heavy rainfall here and there over the county. Growing conditions generally fair. Winter wheat blooming and some of the early spring wheat coming out of the boot. Some alfalfa being cut. Shearing pretty well along. Some reports being made of heavier clips than last year. Labor is adequate. Some local infestation of hoppers reported. Temperatures have been rather low for effective poisoning.

HILL: 1.09 inches precipitation for the past week. Crops are in exceptionally good condition. The majority of the spring wheat is headed out. We have had so much moisture that it has been impossible to get the first cutting of alfalfa out of the way. Ranges are in excellent condition. Livestock in good condition. A surplus of labor. Very little damage from Say's Grain Bugs, crickets or grasshoppers.

JUDITH BASIN: Precipitation high and scattered throughout the county. Cloudbursts have been general, hitting at local spots at various times. Temperatures moderate. Wind slight. Hail moderate but doing considerable damage in several small areas. Soil moisture improving in eastern portion of the county. Wheat reviving with recent rains. Western portion of the county in excellent shape. Soil blowing very slight. No grasshoppers. Crickets being held in check by Federal crew. Cutworm damage decreasing. Feed conditions excellent. Livestock in good shape. Surplus of range. Labor situation balanced.

LAKE: Moderate to heavy showers over the entire county. Most of the week has been cloudy. Storms have badly damaged large percentage of hay which had been cut. All crops making excellent growth. Haying is delayed because of storms. Winter barley and rye are getting ripe. Sugar beet hoeing in full swing. Crickets migrating from higher lands and doing some damage. Grasshoppers are being poisoned in all sections of the county. Sugar beet webworm moths appeared during the week in alarming numbers.



**LEWIS & CLARK - BROADWATER:** Showers common all week. Moisture falling is temporarily slowing up all farm operations. Hay being damaged to quite an extent because of the rains. Delayed cutting of hay for same reason. Other crop prospects excellent. Beet thinning practically completed in Broadwater County. Generally excellent stands of beets. Everything generally favorable to livestock, line of feed, conditions, and lamb and calf crops. Small amount of grasshopper damage in isolated spots. Too wet to do effective poisoning.

**MADISON - JEFFERSON:** Heavy rains over all portions of the counties throughout the week. Growing conditions good, but some fields getting too wet from too much rain. Rains have been warm and sun very hot during the few hours it has had a chance to shine. So much moisture has fallen that many farmers are turning off their irrigation water. No hay has been stacked, though some has been cut more than two weeks and it is in danger of spoiling in the field. Has been too wet and cloudy to poison grasshoppers. Spring grains heading with some of it having lodged already. Potatoes looking very good. Sugar beets very weedy and not much chance to clean them up because of rain. Range and stock conditions remain excellent. Shearing completed in spite of storms. Sheep moved onto reserves. Some sale of wool the past week at 17¢ or thereabouts.

**MEACHAM:** Daily showers. Ground muddy most of week. No excessive run-off except in cases of violent showers. Two more large hay crops hauled out. Growing conditions excellent, particularly for small grain and grasses. Impossible to cure and stack hay during week, some spoiled. Winter rye will soon be ready for harvest. Conditions of all classes of livestock excellent. Shearing about complete. Very slow on account of weather. Some wool moving, 18-20¢. No lamb or cattle sales reported. No activity on government wool loans reported. Supply of labor a little ahead of demand. Insect control work nearly halted on account of wet weather.

**MISSOURI:** Cloudy and rainy most of week. Several good showers during week. Soil moisture in good condition. Alfalfa past prime condition. Cutting has not started on many farms. On others considerable hay is down and being damaged by wet weather. Spring grains heading out. Yield prospects excellent. Beets and potatoes growing well. Pastures and ranges staying in good condition due to recent rains. Labor situation is balanced. Heavy flight of webworm moths. No worms reported yet.

**MUSSELSHELL - GOLDEN VALLEY:** Cloudbursts in scattered localities of both counties. South of the river, all precipitation was confined to steady rains. About 3.50 inches of rain fell in the Roundup vicinity, while only 2.00 inches fell in the Ryegate area. The MusselsHELL river has been higher than it has been for a good many years. The hail damage done in Golden Valley County confined to the river bottom and the South Bench out of Ryegate. No serious damage from hail in MusselsHELL County. Crops looking very good where not damaged by hail. Spring grains heading out. Winter wheat filling. Livestock in very good shape. Plenty of grass everywhere. Ranchers are cutting hay on range land that in previous years the grass was too short for livestock to graze. Shearing about one-half completed.

**PAHR:** Rain practically every day. Excellent growing conditions. All crops and grain excellent due to plentiful moisture. Some damage caused in few spots by high flood water and hail. Rain delaying haying and quite a bit of the first crop is badly damaged by frequent rain and turning. The majority of farmers, however, contemplate beginning haying after the fourth. Hail and insect damage chief threats to fine crop prospects. Best grass in years. Livestock all in fine shape. Some movement of wool at 17-19¢. Surplus of laborers. Cricket dusting on worst infested areas completed. Grasshopper infestation quite bad in spots but farmers reluctant to poison due to lateness of hatch and such excellent forage.

**PHILLIPS:** Heavy showers over large areas during week. Growing conditions very good. Crop prospects very good over most of the county. Extreme northern and northeastern areas have suffered some from moisture deficiency. Rains interfering with alfalfa haying and delaying beet cultivation in valley. No grasshopper damage. Livestock condition very good. Range good. Shearing about completed. Surplus of labor.

**PONDERA:** Weather cool with occasional showers the first part of week. Precipitation .72 of an inch. Last part of week warmer with good growing conditions. Crops in excellent condition. Most of the spring wheat is coming out of the boot or close to it. Stands are heavy. Sugar beets are doing well. Haying has started in many places. No heavy damage due to hail or cloudbursts. Livestock making rapid gains under excellent range conditions. Reports of small amounts of wool being sold at 16¢ and 17¢ per pound. Labor supply is adequate. No apparent damage from insects.

**TRIBBLE:** Heavy showers fell over most of the county Tuesday, Wednesday, and Thursday. Supply of moisture is ample for growing feeds and grain. Late



seeded grain is growing rapidly and in most sections will do better than the early grain. Call for grasshopper bait is increasing daily. Recent rains have insured good forage on the range for the near future.

RICHLAND: There have been two hard rains this week which has improved moisture conditions very much. There has been a total of 4.36 inches of moisture during the month of June. Conditions in the irrigated valley are the best they have been for a number of years with the added moisture which we have had this spring. Thinning and blocking of beets is about 80% completed. All grain crops are in good condition. First cutting of hay is now in full swing in the irrigated valley. Moisture conditions in the dryland section of the county are very good and crops are looking excellent except for the damage being done by grasshoppers. However, an intensive poisoning campaign is now underway in all parts of the county and it is expected that the damage done by the hoppers will be limited. Ranges are better this year than they have been for ten years and there is no doubt that the farmers will be able to put up a considerable amount of feed for the winter. Labor is plentiful.

ROOSEVELT: Heavy rains fell in all sections of the county again this week, reaching cloudburst proportions in some sections. Weather warm latter part of week; growing conditions excellent. Majority of fields of spring grain and other crops in excellent condition all over the county. Many fields headed out. Prospects for the heaviest yields of spring wheat since 1928 on many fields reported. Livestock continue in fine shape with an abundance of grass and water. Very little restocking has occurred after most of the livestock had been shipped out in 1937. Gamma grass beginning to head. Grasshopper poison continues to be spread, particularly in the eastern section of the county where the infestation is heaviest. Little hopper damage reported.

ROSEBUD: General showers brought needed moisture to practically every part of the county during the week. Growing conditions excellent. Winter wheat ripening rapidly. Moisture received during the week practically assures well-filled heads, although earlier drought retarded the growth somewhat. Early spring crops also damaged; later crops still held promise of good yield. Considerable first cutting of alfalfa damaged by rain. Cren and sugar beets growing rapidly. Blue joint meadows mostly under water during week. Wild hay promises biggest crop in years. Ranges continue to improve. Earlier grasses and weeds matured. Spring calf roundup completed. Excellent calf crops obtained over entire county. Shearing completed; few sales of wool reported.

SANDERS: Precipitation; trace. Maximum temperature, 87; minimum 54. Early part of week clear with high temperature. Latter part of week cloudy with frequent showers. Crop conditions greatly improved by recent rains. Winter wheat starting to ripen. Harvesting first cutting hay in full swing. Spring grain heading and in very good condition. New seeding of alfalfa and tame grasses in good condition and making good growth. Livestock in good condition. Livestock being moved to higher summer ranges. Lower ranges revived by recent rains but too late for any material benefit. Grasshoppers and crickets being held in check by rains and poisoning operations.

SHERIDAN: Growing conditions have been ideal during the past week. Scattered showers have occurred throughout the county varying in amounts from one-half an inch to one inch of precipitation. In general, crop conditions are favorable. Most fields are heading out nicely. Large number of grasshoppers are endangering the crops in some parts of the county. Livestock conditions continue excellent. No change in the labor situation.

STILLWATER: Generally cool during the week with several scattered showers. Hail reported in southern part of the county with some damage. All crops in good condition with exception of grain in areas hailed out during previous week. Believe a conservative estimate of crop damage from hail storm previous week would amount to \$20,000. Large amount of first cutting hay down that is materially lowered in feed value or spoiled due to rains. Sugar beets and beans in excellent condition. In some sections even though wheat fields look good, yields won't be as large as anticipated. Livestock continues in good condition. Several large cattle losses reported from poisonous weeds. Stillwater Wool Pool sold past week for 20 $\frac{1}{4}$ ¢. Butcher Creek pool also sold previous week. Surplus of labor.

SWEETGRASS: Partially cloudy. Cool and showery. Precipitation 0.35. Fine crops, except in hailed area. Winter wheat headed. Spring grain growing rapidly. Considerable hay down and in bad shape due to rains. Haying will be in full swing after the 4th, weather permitting. Hail and floods practically destroyed winter grains and gardens in hail area. Spring grains not so badly damaged. Livestock doing well. Shearing 98% complete. Wool selling slowly. Labor situation, unchanged. Grasshoppers doing considerable damage in spots. Control work underway. Crickets remaining in the hills.

TECON: Precipitation for the week was .77. Precipitation for the month of June has

been very good with approximately 5 inches over most of the county and as much as 7 inches in the Power area. Crop prospects are better this year than they have been for many years. Considerable hail damage in an area east of Bynum, 2 miles wide and 15 miles long. Hail damage the first of the week was from a 10 percent to a total loss. Spring wheat is heading out nicely over most of the county. Winter wheat is filling nicely. Alfalfa ready for cutting, pending favorable weather conditions. Sheepmen are somewhat worried over the prevalence of Needle grass on the range this year. Needle grass seed that has been dormant for the past 10 years is evidently coming to life. Livestock in very good condition.

TODD: Several good showers received throughout the week. Moisture recorded at Shelby for June was 3.81 which brought the total since April 1st to 8.34. Crops in very good shape at the present time. There is sufficient moisture to keep them growing for sometime. About 200 acres of crop has been damaged by hail the last week. Farmers are buying insurance in a much greater volume than in the past years. All dry and summerfallowing operations are at a stand-still, the ground has been too wet, as there has been moisture everyday since the 18th of June. Sheepmen are experiencing difficulties in shearing; due to the frequent rains it has been impossible to shear. Grass continues in excellent shape. Short grasses are making excellent growth. Labor is plentiful.

VALLEY: Local showers throughout the county, particularly in northern portion the past week. Crops for the most part are looking good. One report of hail doing slight damage north of Nashua. First cutting of alfalfa practically completed. Sugar beets looking good. All shearing completed with the exception of a few small farm flocks.

WHEATLAND: Continued cool during the week. Heavy rains throughout the week and some hail damage in the American Fork area, particularly to winter wheat. Some damage from soil washing due to heavy rains. Some wool sales during the past week.

WIBAU: Weather hot the first part of the week, cooler the last half. Precipitation over entire county during the week. However, the north end of the county is still dry and crops are materially hurt. The southern one-third is very good, and crop prospects have improved in the rest of the county this past week, except in the northern part. Grasshoppers are numerous in parts of the county. A great deal of poison is being used. Ranges in very good condition in the greater part of the county. Considerable wild hay will be out.

YELLOWSTONE: Local showers and scattered moisture throughout the county, with hot weather. 2.25 inches precipitation. Growing conditions excellent. Scattered hails in Broadview, Molt vicinity of Pryor and east of Custer. Damage undetermined at present time. Precipitation for the month of June, 5.23, which is the most moisture since 1905, recorded at the Billings Station. Precipitation in 1905 was 5.31. Crops conditions are excellent. Spring grains headed out and good stands. Beets growing excellent. Webworms bad at the present time. Winter grain in drylands is heaviest for many years. Some winter wheat lodging. Practically all first cutting hay still in the shock and will be badly discolored. Crickets still threatening all irrigated areas, but oiling operations are effective. A total of 84 miles of ditch, river and streams being oiled at the present time and 76 miles of tin fencing all going double duty. Cricket program very effective and in some areas, drives are cleaning out complete bands. Livestock in excellent shape. Range the best for the past 20 years, according to stockmen. Surplus of labor.

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Jay G. Diamond, Sr. Agr. Statistician.  
T. J. Kuzelka, Jr. Agr. Statistician.

Helena, Montana  
July 6, 1938



UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics — Weather Bureau

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA  
For the Week Ending Tuesday, July 12, 1938.

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau  
Offices: Federal Office Building, Helena, Montana.

Warmer weather generally, becoming hot in the East around the middle of the period, mixed with plenty of sunshine and showers furnished ideal growing conditions for dryland and irrigated crops during the week ending Tuesday, July 12th. Although not as numerous nor as severe as during the two preceding weeks, hailstorms nevertheless continued to cause some losses of grain and hay crops in central and southern sections. Great hordes of grasshoppers flying into portions of the extreme southeastern counties from points outside of the State caused some damage to crops and haylands in their path and threatened more serious damage before harvest time two to three weeks hence.

Except in the damaged areas, grain crops were reported in good to excellent condition. There has been some lodging of grain, but as yet to no serious extent. Winter wheat continues filling well, and in a number of districts is reported ripening. Spring wheat and other spring grains are fairly well headed out, with some in the dough stage. Rye is being harvested in dryland areas, but harvest of other small grains is expected to be later than last year. Some crops in northern sections, especially on irrigated land, are very late. Flax and mustard crops are growing in fine shape, and corn has shown considerable improvement with the advent of hot weather. Pea crops are quite weedy, but stands are excellent and forming large numbers of pods. Sugar beets are mostly excellent; hailed and flooded fields have recovered to some extent, but a few have been completely abandoned because recent long wet periods have prevented thinning and weeding operations. Frosts slightly injured garden stuff in Judith Basin County during the last two weeks. A good crop of sour cherries is reported ready for market in western districts.

A slackening up of showers permitted stacking of much of the damaged early cutting of hay. That too spoiled for salvage has been hauled from the fields and dumped or burned. Cutting of hay is well underway once more, and other delayed farm operations such as summer-fallowing and sheep-shearing are being completed as rapidly as possible. Where the first crop of alfalfa is out of the way, the second crop is reported getting a good start.

Ranges are in excellent shape and capable of supporting far more livestock than are present. There should be plenty of feed for winter grazing except in such areas where grasshoppers have recently appeared in serious numbers from outside the State. Livestock continue in splendid condition with plenty of feed and water.

TEMPERATURE AND PRECIPITATION DATA, WEEK ENDING JULY 12, 1938

Station	Temperature		Sunshine % of Possible	This Week	Total Precipitation	
	Highest	Lowest			From April 1st to Date	For Corresponding Period in 1937
Billings	98	53	*	0.20	10.30	6.39
Bozeman	84	45	*	0.19	9.87	8.39
Conrad	*	*	*	0.93	8.45	5.98
Cut Bank	85	43	*	T	9.09	5.82
Fort Peck	94	53	*	0.11	6.06	3.60
Glendive	97	52	*	0.06	5.37	4.84
Great Falls	86	51	*	0.27	9.48	3.98
Havre	90	56	74	0.51	7.93	6.27
HELENA	85	52	70	0.53	9.40	3.74
Kalispell	86	46	76	0.45	4.32	4.95
Lewistown	90	44	*	0.16	11.19	5.34
Malta	92	53	*	0.26	7.95	5.88
Miles City	96	54	80	0.35	6.41	4.06
Missoula	92	50	72	0.21	7.10	3.08
Poplar	94	49	*	0.35	9.04	2.30
Stanford	*	*	*	0.50	11.08	4.55
Average				0.32	8.32	4.95

\*No Data.

W. E. Maughan, Weather Bureau.  
Jay G. Diamond, Bur. of Agr. Economics.

The following summaries of Crop Conditions for the week ending July 9, 1938 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Rain the first part of week; the past two days warmer without rain.

Haying delayed due to rain with a small amount of hay cut during rain a total loss; crops good; irrigating water supply excellent with some water commissioners being removed. Shearing still being delayed due to rain; activity in wool sales good the past week; livestock in good shape. Ranges excellent. Large numbers of webworm moths, but as yet no worms.

BIG HORN: Heavy showers accompanied by hail in some localities fell over the county early in the week. The hail did much damage in a region north of Hardin and the Lodge Grass district. Growing conditions are good except in places where flood water has not drained off. Winter wheat is ripening and spring wheat nearly all headed. Except for the flooded and hailed areas, sugar beets are making good progress and much of the acreage damaged by hail will recover to some extent. The first crop of alfalfa practically all in the stack but very much damaged by the heavy rains. Wheat farmers of the county are showing much interest in storage of wheat on farms, pending information on loans by the Government. Range and livestock in excellent condition. Ample labor. Crickets doing damage in some localities but are largely controlled by oiling, tin barrier, and dusting. Grasshoppers appearing in the Big Horn Valley.

BLAINE: The fore part of the week characterized by light showers in the western part of the county with a heavy rain in the eastern part. Temperature moderate. Growing conditions excellent in all parts of the county. All crops, both on irrigated and dry land, showing excellent growth with the exception of the acreage of sugar beets which was damaged by the flood of two weeks ago. The beet acreage loss is now estimated at 1200 acres. Haying has been delayed due to the wet weather. Livestock and range in excellent condition.

CARBON: Heavy showers almost every day in most sections of the county, Rains occurring in late afternoons as a general rule. Severe hail damaged the territory in the Five Mile and Edgar sections. Crop conditions excellent where not damaged by hail. Winter wheat beginning to ripen. Spring grain practically all headed. Practically all the first cutting of hay, particularly alfalfa, has been stacked, although badly damaged. Sugar beets making exceptional growth this season although the beets in the Bridger area were severely damaged by hail. With the excessive amount of moisture it has been difficult to work beans and beets to prevent weed growth. All livestock in excellent condition.

CASCADE: Scattered showers with cool nights and four sunny days, improved last week's crop conditions and farmers are now moving hay into the stack as rapidly as possible. Quite a lot of hay which was cut prior to and during the rains of the last two weeks has spoiled beyond salvage and is being hauled to coulees and dumped. All grain crops are in excellent condition and winter wheat is commencing to turn. Slight hail loss reported in the Fairfield district Friday afternoon. Second hoeing of sugar beets is completed and fields are now being ditched in preparation for irrigation. Livestock in excellent condition. Surplus of labor. No damage reported from grasshoppers. Mormon crickets under control.

CHOUTEAU: Ideal growing weather for crops. Rain almost every day in some areas of the county. Hail damage in several areas reported 15 to 90 percent. Cool with short periods of high wind. Spring wheat showing especially rapid growth. West of Big Sandy the best crop in years is in prospect. Winter wheat turning ripe in a few localities. Estimated yields of 30 to 35 bushels reported. Outbreaks of Mormon crickets continue in the Square Butte area. Tin barriers being erected but some have entered crops due to shortage of sufficient barrier. More extreme outbreaks are expected in the future. These outbreaks are threatening the most productive crop land in Chouteau County.

CUSTER - POWDER RIVER: Warm with light scattered showers. Hailstorms in south country and Powder River County, doing spotted damage to grain crops, causing losses up to 90 percent. Hail on the Little Powder River July 4 completely destroyed hay and grain crops, also cleaned range of grass. This area only a few in south country headed but need rain. Extremely severe invasion of migratory grasshoppers July 3 now occupying eastern half of both counties and moving westward. Reported damages few so far. Grain crops being cut for hay where destruction appears imminent. Poison bait going out but most to irrigation farmers. Control by baiting generally hopeless, as range country also heavily infested. Damage to range feed not yet apparent. Dry land rye harvest underway with good yields in prospect. Irrigated crops excellent. Haying continues. Condition of both sheep and cattle remains excellent with plenty of grass and water. Harvest of wild hay started with the best crop in several years. Limits of Mormon Cricket infestation extended south and east but damage to crops not generally noticeable.

DANIELS: About two and one-third inches of rain fell over most parts of the county during the week. Most of this came in the form of torrential showers,



consequently, some washing and flooding occurred. Some losses reported from hail. Otherwise growing conditions excellent. Grain crops practically all headed out with the exception of a few late seeded fields. Some lodging of wheat taking place where stands are extremely heavy. Some smut losses indicated in Ceres Wheat. Livestock in good shape with abundance of grass. Some haying done in coulees where grass is tall enough and on fields where Sweet Clover and weeds have attained good growth. Labor situation unchanged. Some slight damage reported from grasshoppers along the eastern border of the county, but very little bait being spread.

DAWSON: Weather conditions have been cool, with a small amount of precipitation. Growing conditions excellent. Crops in good shape as far as moisture is concerned. Wheat filling out in good shape. Considerable hay being cut. Livestock in good condition, with an abundance of grass and lots of water. Labor situation is o.k. Hordes of migratory grasshoppers moved in the fore part of the week and are doing considerable damage.

FALLON - CARTER: Precipitation .93 inch this past week. As far as moisture is concerned, growing conditions are good. After keeping local grasshoppers under control operators in Fallon and Carter Counties beginning Saturday of last week are now confronted with hordes of grasshoppers that have come in from the southeast and are now faced with total destruction of crops in the counties. Damage today varies from 30 to 100%. Operators are in the field salvaging what hay they can although hoppers are devouring crops even before there is a chance to obtain much hay. A very critical and deplorable situation has suddenly arisen in our counties. In addition to grasshopper damage the counties have met with serious hail in different localities, principally Chalk Buttes and the Bell-tower Communities in Carter County. Shearing is completed. Sales range from 19¢ to 21½¢ in southern Carter County. All livestock in good condition. Critical situation as to future grass supply dependent upon just how destructive the hordes of grasshoppers are to range land.

FERGUS: Precipitation 2.34 inches this month to date. Exceptionally heavy rains first part of week. Last part warm and exceptionally good growing weather. Winter wheat has recovered quite a lot from damage of drouth and frost, which occurred between June 5 and June 20. Spring wheat is almost in perfect condition, with practically all fields of the county heading and some in eastern part well along toward maturing. Some streaks of hail not covering a very large area but going up to 75% damage in some fields. Alfalfa and sweet clover cut before rains started have been damaged but that which had not been cut has been materially benefitted by moisture. Livestock in excellent condition with grass on all ranges a lot more than stock will be able to use this year. Prospects for plenty of hay for wintering present numbers and with considerable carry-over unless restocking is made possible this fall. Grasshoppers being poisoned in some scattered sections, but will not cause damage if thick spots along fences are poisoned out.

FLATHEAD: Rainy and cloudy throughout the week. Growing conditions ideal for wheat. Prospects for heavy yields of spring grain best for several years on 80% of the seeded acreage. The balance is fair. Winter wheat filling good and yields will average higher than expected. Winter wheat acreage for harvest will be the largest in several years. Haying is being delayed on account of wet weather, and the quality of the first crop will be poor. Second crop coming on in better shape than in several years. Range and pasture materially improved as a result of recent rains. Livestock in good shape.

GALLATIN: Some heavy showers during the week, with a hail storm in Menard section on Friday. Crop damage in Menard section due to hail storm latter part of week. Fall grain is in excellent shape and spring grain is heading out. Very little grasshopper poison being distributed, due to moisture conditions. Range conditions still good. Gallatin Wool Pool sold this week.

GARFIELD - PETROLEUM: Continued precipitation. Temperatur warm. General growing conditions good. Crop conditions the same as previously reported. Livestock conditions good. Range grasses continue recovery.

GLACIER: Weather warm and muggy all week. Excellent growing conditions. Winter wheat headed out, spring grains heading. Flax and mustard generally in good shape. First cutting of alfalfa two-thirds down. Stock in excellent shape. Shearing about done. Good clips reported. Some hopper poisoning southeast of town.

HIEL: Precipitation 1.42 inches for the past week. Ideal growing conditions thru out the week with scattered showers. It is still too wet for good haying weather and considerable portion of first cutting of alfalfa spoiling in the fields. Reports of hail damage in small scattered areas. Ranges in good condition. Livestock in very good condition.

JUDITH BASIN: Precipitation heavy with scattered showers. Hail moderate and scattered, very little damage the past week. Frosts have injured



some gardens during the past two weeks. Soil moisture excellent and crop prospects best in years. Grasshoppers beginning to show up. Livestock in good shape on the range. Grass excellent. Needle grass predominating in good many sections of range.

LAKE: Heavy rains fell in all sections of the county, reaching cloudburst proportions in some places. Some rain has fallen in scattered parts of the county every day, except one during the past week. Growing conditions very good. Alfalfa which has not been cut is far past its prime. Some of the early seeded barley and wheat is getting ripe. Field prospects are best of several years. Sugar beets getting rather weedy because storms have delayed cultivation. Grasshoppers are numerous in parts of the county. A great deal of poison is being used which is holding the hoppers from doing any damage. Crickets are being held from doing any material damage. Sugar beet webworms are making their appearance.

LEWIS & CLARK - BROADWATER: Rain the fore part of the week. Clear and sunshiny the latter part. Increased sunshine improved growing conditions. First cutting of hay being handled fast with much of a poorer than usual quality and some too badly damaged to stack. Many growers are letting the hay mature beyond the usual cutting stage rather than cut it during the rainy weather. Other crops showing up well. All classes of livestock is excellent condition. Insect damage negligible to date.

MADISON - JEFFERSON: Precipitation less than previous week with a general slackening up of rain and dry weather towards end of week greatly improved growing conditions through less moisture and warmer weather. Crop conditions improving with warmer weather and less rain. Haying rapidly getting underway after being delayed two to three weeks on account of rain. Sugar beet growers rushing thinning and weeding operations that have been greatly delayed. Rapid growth being made by grain and potato crops with excellent moisture and warmer weather. Some grasshoppers in spotted areas are still potential trouble makers. Pea crops very weedy but excellent stands and doing well with a large number of pods being formed. Exceptionally good livestock conditions, with excellent grass and water. Many grasshoppers being reported on the high mountain ranges. Taylor Grazing people preparing to experiment with fighting hoppers on high, rough, mountain ranges as soon as weather warms up sufficiently and rains stop.

MEAGHER: Showers almost daily. Cloudburst in northern part of the county Wednesday, no serious damage reported. No more damage by hail reported. Growing conditions excellent. Most of the haying operations were delayed because of the rainy weather, although some rye is being cut for hay. Most alfalfa ready for first cut. Two Whitetop infestations reported, although neither will be serious if control measures are taken right away. Condition of all classes of livestock is excellent. Shearing nearly completed, still held back because of the weather. No lamb or cattle sales reported. No activity on government wool loans reported. Supply of labor a little ahead of demand. Cricket and grasshopper operations progressing very slowly on account of rain.

MISSOULA: Warm rainy weather all week. Several good showers. Too wet for haying. All farmers trying to make hay but hay is being damaged by rain. All grain crops, beets, potatoes, etc., in excellent condition. Wheat headed out. Prospects of excellent yield. Plentiful soil moisture has reduced the need for irrigation of most crops. Sour cherries ready for market -- good yields. Ranges and pastures in good condition. Beet webworm outbreaks becoming serious.

MUSSELSHELL - GOLDEN VALLEY: Scattered cloudbursts Sunday night. From 1 to 2½ inches fell. Has warmed up considerably the last part of the week. Hail in the Big Coulee south of Ryegate that caused serious damage. Many ranches were wiped out with a 100% damage. Others received from 25-50% damage. Hail in Lake Mason area in Musselshell County. Reports of from 25-50% damage in some localities. Where crops have not been damaged by hail, they look excellent. Livestock in good condition.

PARK: Frequent showers, with considerable wind causing more or less lodging of grain. General growing conditions have been very good. Weather has hampered haying operations and very little hay is in the stack as yet. Generally over the county, haying is in full swing and comparably small amount of hay lost through excessive rain. All grain crops look exceedingly well and hay and forage are the best in many years. Rye and winter wheat are all headed out and spring wheat is about half headed out, taken over the county as a whole. All livestock looks fine and feed is abundant.

PHILLIPS: Heavy showers in practically all parts of county this week. Growing conditions good in dryland areas. Sections of Valley flooded. Hail reported in Missouri River country. Crop prospects look good. Wet weather interfering with cultivation of beets and with haying. No hail damage reported to crops. A few poisoning grasshoppers in valley. Livestock and range in excellent condition. Needle grass giving sheepmen trouble.



**PONDERA:** Weather warmer with intermittent showers during week. Total precipitation at Conrad 1.48 inches. Crops all making rapid progress and stands exceptionally thick. A few fields of sugar beets had to be abandoned because of delay in thinning and weeding due to recent rainy spell. Livestock condition unchanged. There are some areas infested with grasshoppers. However, no damage has been reported to crops. It appeared that grasshoppers in infested areas were not capable of much activity.

**PRAIRIE:** Scattered showers fell over county first part of week with heavy rain along the valley Sunday night. Saturday, July 2, Union area was damaged by hail and Sunday night Cherry Creek sustained a hail loss of from 50% to complete destruction. Crops continue to look good. However, grasshoppers moved into the county from southeast on July 3, but largest movement took place Friday when the air was filled with them. What damage they have done and what they will do cannot be determined at this time. Hopper bait is moving out quite rapidly. Some damage by hoppers to the range has been reported from various sections of the county. However, there is still good range and livestock is looking good.

**RICHLAND:** Precipitation 1.05 inches in vicinity of Sidney, greater amounts in western portion of county. Crops in dry land in general are looking good and if nothing unexpected happens yields should be best for ten years. Cutworms did considerable damage to corn fields earlier in the year but crops are looking good despite these insects and the damage being done by grasshoppers. Moisture conditions very favorable in irrigated section and beet fields as well as other crops are looking very good. Pastures and ranges in very good condition and cattle and other livestock are in excellent shape. Grasshoppers very numerous at present time but poisoning campaign is in full swing. Good results of poison are being reported.

**ROOSEVELT:** Heavy showers fore part of week. Temperatures warm. Growing conditions good. Crops in excellent condition though some spring wheat in is very weedy. Summer fallow operations continue after moisture of past 10 days after fields dried. Smut present in untreated fields. Considerable wild hay will be put up this year. Range conditions unchanged. Grasshopper poisoning slackened with wet weather. Only small amount of hopper damage reported.

**ROSEBUD:** Heavy rains with light hail covered almost entire county during 4th. Small areas in various parts of county completely hailed out. Hail loss estimated to average about 10% on all grain crops in county. Rye and winter wheat harvest expected to start next week. All spring grain greatly benefitted by moisture which is sufficient over most of county to assure fair yields. Flights of grasshoppers reported in eastern part of county. One flight on Friday reported to be about 8 miles in width and practically obscuring the sun. Heavy rains over holidays washed out 42 bridges. Some communities practically isolated most of week because of washouts.

**SHERIDAN:** Frequent showers throughout county have amounted to 2.25 inches precipitation. Showers followed by warm weather with plenty of sunshine. Crops developing very rapidly due to favorable growing weather. Crop conditions excellent. Surplus of moisture available at this time. Most fields are headed and heads appear to be filling nicely. In some localities some damage is being done by grasshoppers. Most of this damage appears to be confined to eastern part of county. Livestock conditions very favorable with abundance of pasture and prospects for a good hay, corn and feed grain crop. There is very large demand for bait and control of insects in the crop area of county appears to be quite successful.

**STILLWATER:** Generally cool during entire week with scattered showers. .98 inch precipitation at Columbus. Damaging hail in small section. Crop conditions continue favorable as a whole. Some grain lodging on dry land as well as irrigated ground. Few fields of wheat starting to turn but in general harvest will be later than last year. Unfavorable haying weather will spoil considerable first cutting hay. Beans and beets making rapid growth. Cricket dusting continuing with good results. Some hoppers showing up but not doing any damage. All livestock in good condition altho losses are still being reported from poisonous weeds. Stillwater Wool Pool loading out this week. Practically all shearing completed. No lamb contracting to date.

**SWEETGRASS:** Weather moderately warm, somewhat cloudy, showers, some wind and slight hail. Precipitation 1.06. General growing conditions excellent. Everything thriving except in hail areas. Grains of all kinds advancing rapidly. Considerable alfalfa being damaged due to rains. 75% of haying is just under way. Livestock growing rapidly. Damage from poison about over. Labor situation unchanged. Crickets pretty well under control. Grasshoppers hatching in alarming numbers along Yellowstone River.

**TETON:** Precipitation .85 inches at Choteau. Scattered showers over most of county with from 1 to 1.5 inches rain in various places. Scattered hail but no

great amount of damage reported this week. Excellent growing weather. Alfalfa haying under way. Considerable damage to alfalfa because of rains. Harvesting will be later than usual. Spring wheat headed out nicely over about 65% of county. Some crops, especially on irrigated lands, are very late.

TOOLE: Scattered showers and warm, Precipitation at Shelby, 1.53 inch. All crops coming along nicely. Some lodging of barley and heavy seeded crops reported. Some wool sales reported varying from 17 to 20¢. Sheepmen avoiding needle grass as much as possible and all operators have more than adequate range. Grass remains in excellent shape and shorter grasses are headed out. Considerable movement of hay hands thru local employment office. Labor supply is adequate locally.

VALLEY: Heavy rains in all sections of county. Warm weather latter part of week. Growing conditions excellent. Majority of fields of spring grains and other crops in excellent condition all over county. Many fields heading out. Irrigated crops looking excellent. Farmers find it difficult to weed or cultivate crops, past 10 days to two weeks. Blocking and thinning of sugar beets practically completed. Haying slowed up, some yet to be cut, some laying down. Ranges in excellent condition. Livestock in good condition. Report of slight damage from hoppers in very few sections of county, and poisoning is being done in these sections.

WHEATLAND: Growing conditions very good, some rain during week throughout county, with small amount of hail altho not enough to do any damage. Weather warmed up considerably. Crop conditions continue exceptionally good. Grasshoppers still hatching out in southern portion but not in sufficient numbers to cause any serious damage. Considerable activity in wool marketing during past week. Nearly all wool has been sold.

WIPAUX: Weather ideal for growing. Precipitation covering greater part of county during week. Grasshopper condition very serious. There are at least 10 times as many hoppers in the county as there were previous to poisoning campaign. Poisoning is still being carried out, but grasshoppers are moving very fast. Some are cutting cats for hay, and leaves on wheat are being cut fast. There are still two weeks or more until wheat harvest so there is a question as to how much of the crop will be left. Haying is in full swing with a good crop. Very little wool has been sold.

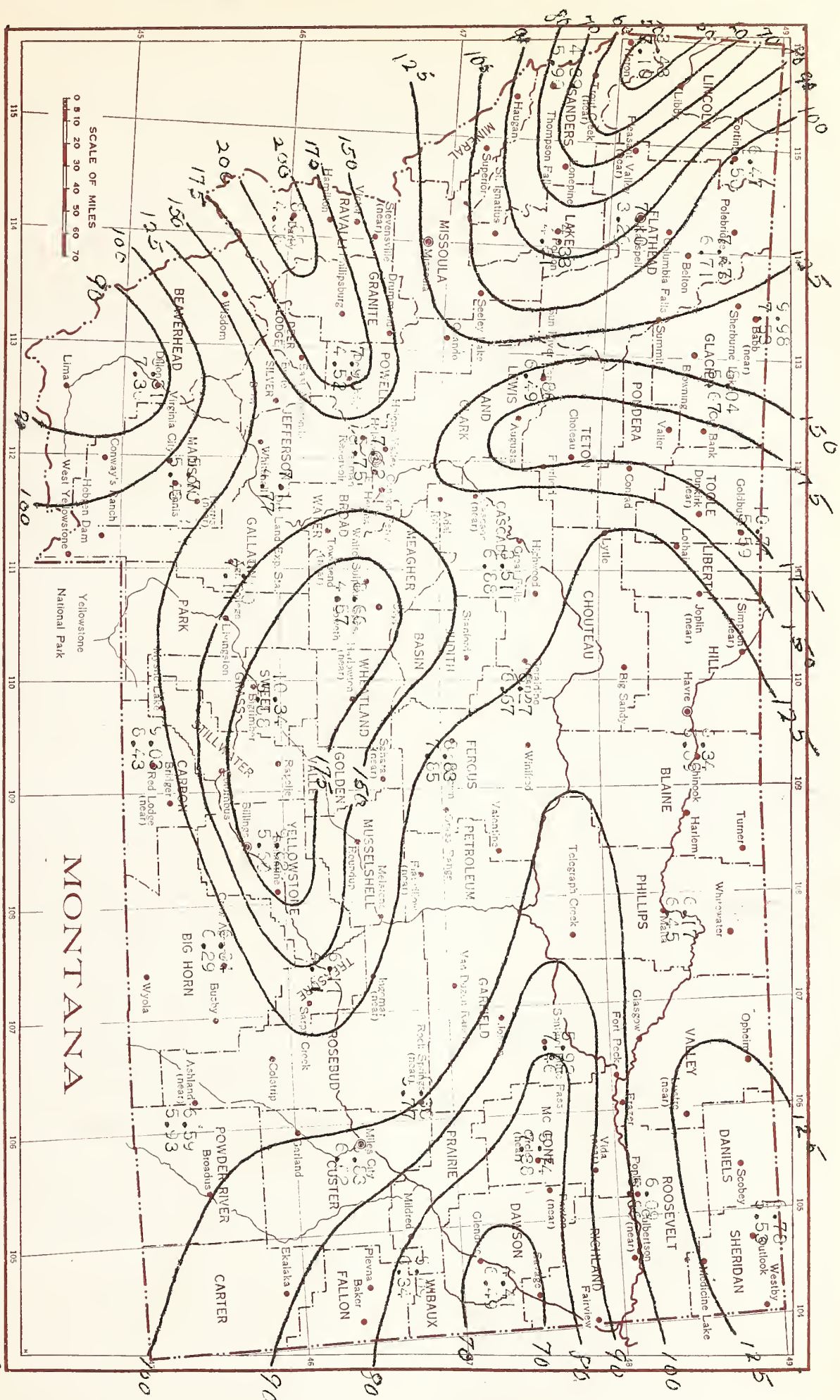
YELLOWSTONE: Precipitation .43 inch. Cool, cloudy with frequent showers. Hail in northeastern part of county July 3rd, in district north of Shepherd and Nibbe, and crops completely winded out. Haying practically finished with considerable loss due to damp, rainy weather. Winter wheat beginning to turn in dry land districts. Some spraying of beets for webworms under way. Oiling operations for crickets still under way, with very effective results. No wet mash bait being used, due to cool rainy weather. Tin barrier very effective. Livestock in excellent condition. Range grass very good.

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Jay G. Diamond, Sr. Agr. Statistician.  
T. J. Kuzelka, Jr. Agr. Statistician.

Helena, Montana  
July 12, 1938



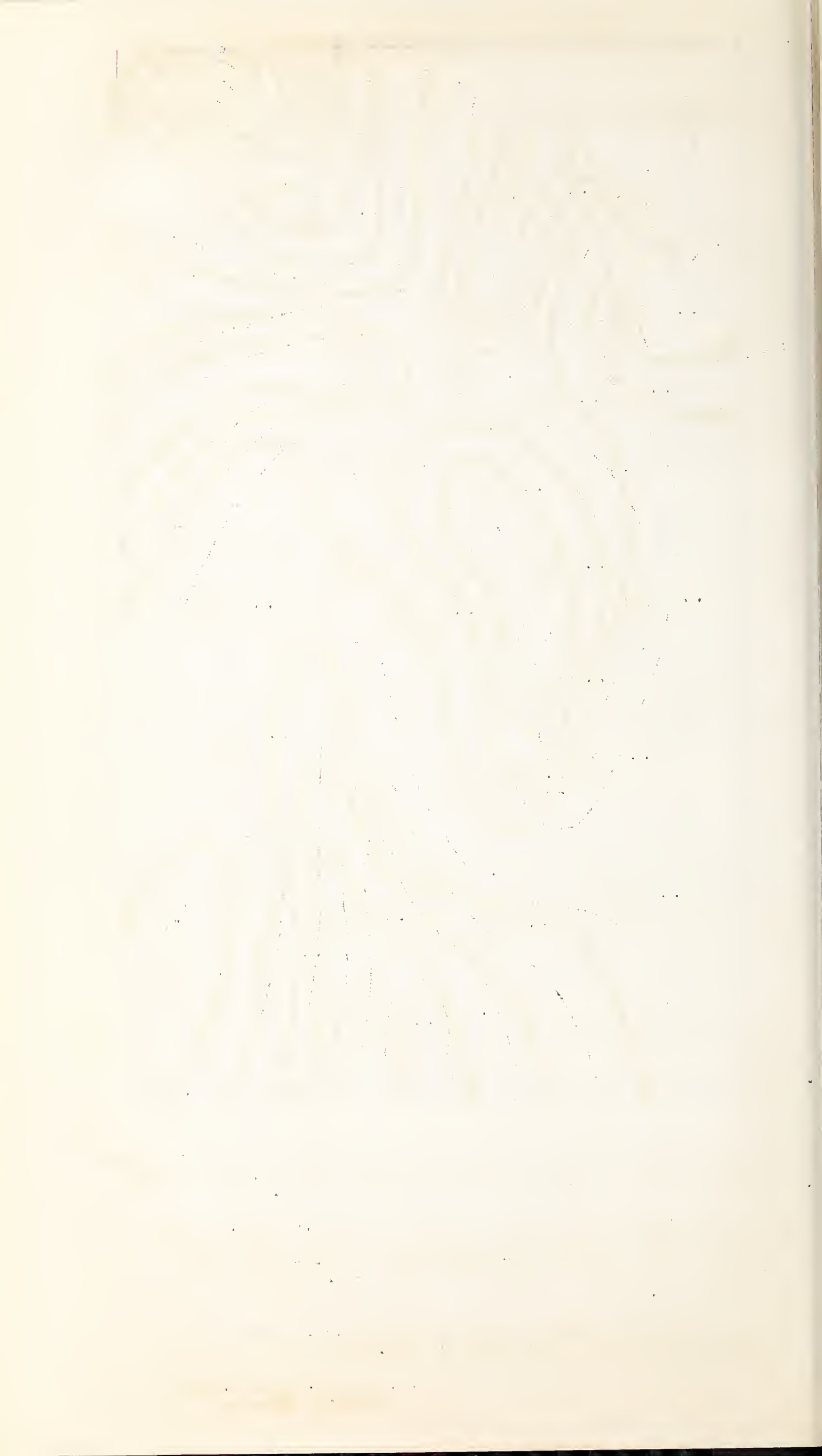


This map shows the percentage of normal precipitation that has occurred in Montana during the first three months, April to June, inclusive, of the 1938 crop-growing season.

The upper of each typed pair of figures indicates the actual amount of precipitation that occurred in that respective area during the period April to June; the lower figure of the pair indicates the normal precipitation for the same period.

Lines are drawn for each 10 per cent up to 100, and above 100 for each additional 25 per cent.

U.S. Weather Bureau,  
Helena, Montana





UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics — Weather Bureau

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA  
For the Week Ending Tuesday, July 19, 1938.

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau,  
Offices: Federal Office Building, Helena, Montana.

Warm sunshiny weather prevailed over the State during the week which was the warmest so far this year in the western and northcentral portions of the State with daily maximum temperatures being in the upper eighties and lower nineties. Light scattered showers, which fell mostly during the latter part of the week, occurred over the State except in the extreme northwest portion where no precipitation was reported. Some hail accompanied the showers in widely scattered sections but losses were much smaller than either of the preceding two weeks. Seasonably warm temperatures were favorable for all crop growth, for ripening winter wheat and curing hay crops. Except for the development of an area of grasshopper infestation in east-central Montana, now threatening about 15 counties, the week was one of crop gains rather than crop losses. It is yet too early to measure the extent of the grasshopper damage. The insects migrated into the State from the East. Damage to date has been heaviest in Carter, Fallon, Wibaux, Prairie, Dawson, and Richland Counties.

Progress of winter wheat has carried it to harvest in south-central Montana. Elsewhere it is reported to be ripening rapidly. Depending upon continued ripening weather, harvest should be generally under way in about two more weeks. Spring wheat has made splendid progress. Early seeded spring wheat is now ripening in Big Horn County where cutting will start as soon as winter wheat harvest is completed. Elsewhere most of the early seeded, which makes up the large bulk of the spring wheat acreage, is fully headed out and well started in filling. Considerable of the rye has already been harvested both as grain and hay. Oats and barley are nearing harvest where seeded early. Flax continues to improve in northeastern Montana.

Warmer and drier weather favored irrigated crops that had been delayed by wet weather in late June and early July. As fields have dried cultivation has been resumed in case of row crops. Losses of sugar beet acreage have continued from flooding. Otherwise, the crop is making good growth. Corn, potatoes, and beans have responded to warmer weather with faster growth. Some early peas are ready for harvest in Flathead County.

Haying operations were rushed in all parts of the State last week to take advantage of the first spell of good haying weather since first cuttings began about a month ago. Some damage by rains continued to be reported from a few localities, but on the whole weather was very favorable for curing hay. Second crops of alfalfa are showing the best growth in years. With an abundance of wild and prairie hays there will be no shortages of winter feed anywhere in the State this season.

Livestock, especially those on ranges, have made the best gains in many years due to the abundance of feed and water and the absence to date of extremely hot weather. Fruit crops in western Montana continue to show good prospects. Cherries will be ready for harvest in another week and will make the largest crop in several years. Farm gardens during the week were damaged, in widely scattered areas, by webworms. There was also some damage by these pests to peas. Sugar beet fields for most part have been protected by poisoning.

TEMPERATURE AND PRECIPITATION DATA, WEEK ENDING JULY 19, 1938

Station	Temperatures		Sunshine % of Possible	This Week	Total Precipitation	
	Highest	Lowest			From April 1st to date	For Corresponding Period in 1937
Billings	92	55	*	1.08	11.38	6.77
Bozeman	83	48	*	0.18	10.05	8.81
Conrad	*	*	*	0.08	8.53	6.04
Cut Bank	90	49	*	0.20	9.29	5.98
Fort Peck	91	56	*	0.35	6.41	3.82
Glendive	92	54	*	0.11	5.48	6.03
Great Falls	91	54	*	0.00	9.48	4.62
Havre	92	56	90	0.13	8.06	6.60
HELENA	89	54	76	0.08	9.48	3.77
Kalispell	92	54	92	0.00	4.32	5.21
Lewistown	88	48	*	0.09	11.28	5.89
Malta	92	52	*	0.91	8.86	6.45
Miles City	92	58	84	0.15	6.56	5.33
Missoula	94	56	84	0.07	7.17	3.26
Poplar	90	52	*	0.05	9.09	4.80
Stanford	*	*	*	0.03	11.11	5.27
Average				0.22	8.53	5.54

\* No Data.



The following summaries of Crop Conditions for the week ending July 16, 1938 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Rains first of week, temperatures warmer. Cloudy last of week. Crops in good condition. Haying operations in Beaverhead Valley resumed. Beaverhead River much lower than a week ago, possible water commissioner's will be put back on. Shearing nearing completion. Some activity in wool. Sheep ready to be moved to summer range when shearing is completed. Livestock in good condition. Range feed plentiful. Sugar beet webworms reported causing some damage to peas.

BIG HORN: Growing conditions very good; no precipitation. Winter wheat ripening rapidly and first field reported combined last of the week. Combining expected to become general within next few days. Spring wheat all headed out and will be ready to cut by the time winter wheat is harvested. Much of the grain damaged by hail is abandoned, but sugar beets are making slow recovery. Second cutting of alfalfa to begin within next few days. Range in splendid condition and livestock in equally good condition. Labor ample. Crickets making infestations in new areas but control measures holding them in check. Grasshoppers hatching out but very little damage reported and some poisoning going on.

BLAINE: Weather conditions general, clear sunshiny days and moderate temperatures. Some hail damage occurred on Big Flat area evening of July 10. Growing conditions excellent in all parts of county. Haying in full swing on irrigated farms and ranches. All grain crops now headed and if favorable moisture conditions continue an excellent crop will be harvested in all sections. The loss of sugar beet acreage due to flood conditions continues to increase. Livestock and range in excellent condition.

CARBON: Temperature ranged from 60° to 92° in Belfry area. Heavy rains reported in certain sections. Much lightning and electrical storms. Hailed beet crops making recovery. Winter wheat ripening fast. Hay continuing in western portion of county where timothy and native grass abounds. Second cutting alfalfa making wonderful growth. Beans in blooming stage. Irrigation will be necessary with continued heat. Livestock conditions very good, plenty of range and grass with livestock in small numbers. Labor ample.

CASCADE: Warm weather with maximum temperature of 92° on Thursday has made ideal growing conditions and provided excellent weather for maturing the abundant fields of winter wheat and for filling spring wheat which is now in full bloom. Farmers putting hay in the stack, most of it having been damaged by rain, and that which was not cut having been lowered in quality due to getting too cold. Livestock in excellent condition. Labor normal. Severe outbreak of sugar beet webworms appeared Wednesday and will likely do some damage to gardens. Farmers are protecting beet fields from this insect. Crickets continue to harass farm crops but no great amount of damage has been done.

CHOUTEAU: Several light showers in south areas of county. Two hot days speeded ripening of wheat. A few areas near Carter and Gencu showing lack of moisture. Wheat maturing rapidly, yields will run from 15 to 25 bushels on spring wheat and 20 to 35 on winter wheat. Hail damage and grasshopper damage will be low according to present prospects. Farmers busy on repair of machinery and equipment for harvest. Webworms damaging gardens, largest infestation on record and scattered over entire county. Control methods such as poisoning are inadequate due to large numbers.

CUSTER - POWDER RIVER: Temperature generally high with few light scattered showers. no rain of consequence. Migratory grasshoppers still a threat to dryland crops, although much of the invasion has moved northward. Damage to grain crops spotted. Many fields already cut for hay. Control measures carried out mostly in irrigated section. Harvest of winter wheat to start soon where undamaged by grasshoppers. All irrigated crops making good growth. First crop of alfalfa now in stack after much delay because of rain. Harvest of blue-joint hay starting with exceptionally heavy yield where flooded. Stock in excellent condition. Grasshopper damage on range not noticeable. Grass crop made and cured.

DANIELS: Approximately .35 inch precipitation in some sections. Some serious damage from hail reported. Growing conditions excellent. All grain crops making good growth. Red Rust appearing in both early and late seeded wheat fields throughout county. Livestock situation unchanged. Some haying still being done. Labor situation unchanged. Poisoning of grasshoppers has increased as the damage is becoming more apparent.

FALLON - CARTER: Precipitation .03 inch. General growing conditions fair. Extreme heat prevailed latter part of week. Grasshopper situation relieved by departure of large numbers from county. Considerable damage in various localities although if no more hoppers fly in there will be some crop. Some grain standing with all leaves eaten from stem. Questionable just what effect this will have upon maturing grain. Livestock conditions fair to good.



FERGUS: Hot dry weather exceptionally good for maturing winter wheat and for hay crops. Winter wheat coming along to maturity. Combining expected to start about first week in August. Hay crop heavy with many tons of hay being put up from native grass land. Some hay spoiled during three weeks of rain. Hail struck Denton country taking about 5,000 acres of crop. A few individuals hailed out. Some other strips of hail have taken down an additional thousand areas. Live-stock continues in best of condition. Mormon crickets showed up on Coffee Creek section but by putting on a crew with hand guns and the power duster, the crickets have been completely killed. Grasshoppers showing up in spots, doing some damage. No movement of hoppers in this area, as yet.

FLATHEAD: Clear and sunshiny all week, with relatively high temperatures. Growing conditions excellent. Crops showing up much better than several weeks ago, and winter wheatfilling good. Haying operations in full swing. Pea harvest just started. Rye and some winter wheat may be ready for harvest last of next week. Oat and barley crops showing up best for several years. Heavy outbreak of sugar beet webworms, but damage confined entirely to gardens and a few new stands of alfalfa and clover. Effective control has been obtained with use of oil around gardens, and spraying. Pastures have improved since rains and range is in good shape. Livestock in good condition.

GALLATIN: Extremely hot and dry in some sections. Few spotted showers. In some localities spring wheat is in need of moisture. Winter wheat beginning to turn. Haying in full swing, and early cut hay badly damaged by moisture. Small amount of grasshopper poisoning being done around county as a whole. Pasture conditions normal. Many requests for haying jobs.

GARFIELD - PETROLEUM: Scattered showers of rather small amounts in only scattered areas of counties. General growing conditions good, weather being warmer than any previous period, but not especially warm for the season. Additional moisture will be needed in some areas soon. Crop conditions generally good with practically all grains headed. Corn made considerable growth during week. In southeastern and eastern Garfield County, grasshoppers moved in from distant territory and have completed considerable damage to grain crops, alfalfa, and gardens. In areas where grasshoppers are doing damage to feed crops, these crops are now being harvested for hay. Livestock in very good condition, with pasture ample in all areas.

GLACIER: Warmer to hot all week. Few scattered thunder showers. Temperatures 80° and over. Grains generally headed out, flax in bloom. First cutting of alfalfa about all doen, some being stacked. Rye hay being cut. Fields getting in such shape that summerfallowing operations can be done. Pastures excellent. Livestock condition excellent. Shearing about completed. Labor adequate. Some scattered grasshopper poisoning being done. Few minor infestations of sugar beet webworm reported.

HILL: Trace of precipitation. Three days of extreme high temperature has caused some burning of fields and will cut yield to some extent. No reports of grasshopper or cricket damage, but severe infestation of sugar beet webworm which are causing damage to gardens primarily. Some reports of damage from Say's Grain Bug. Ranges in good condition. Livestock in good condition. Surplus of labor.

JUDITH BASIN: Temperatures high, rainfall slight. Hail light to destructive and scattered throughout county. Fall and spring grains looking excellent, over most of county. Considerable damage to hay from continuous showers. Grasshoppers beginning to appear in north edge of county. Webworms have appeared in large numbers in some areas. Crickets spreading but still being held in check and damage prevented by Federal crews. Livestock in excellent condition. Abundance of range grasses forming seed. Labor balanced.

LAKE: No precipitation. Weather rather hot with maximum temperature of 96°. Haying nearly completed with considerable loss due to damp rainy weather and hay being far past its prime. Fall and early seeded grain getting ripe. Ranges in excellent condition. Some of the shorter grasses have headed out and are getting ripe. Sugar beet webworms did considerable damage before spraying could be completed. Grasshoppers seem to be decreasing due to disease and parasites. Crickets are bunching and dusting is more effective.

LEWIS & CLARK - BROADWATER: Scattered showers with hail damage in small areas. Temperatures and sunshine very favorable for growing crops. Summer fallow has had to be practically continuous to control weed growth. Preparations for wheat in stack, delayed due to heavy rains first of month. More wild hay available than for several years. All crops progressing favorably. Livestock in usual good condition of this year. Insect damage at minimum, practically no poisoning being done.

MADISON - JEFFERSON: Heavy rain Thursday night and Friday. Growing conditions excellent. Weather very hot till Thursday night's rain. Crops



in very good condition and making rapid growth. Hot days removed large quantity of soil moisture, so that additional moisture is needed. Haying made rapid progress fore part of week, but was delayed again by rains. Several beet fields being abandoned because not weeded or thinned early enough, and labor troubles. Thinning and weeding delayed by rains. Condition of livestock very good with lots of feed available.

MEAGHER: Only light scattered showers. Moisture condition still good. Higher temperature speeding up plant growth. No hail damage reported. Growing conditions excellent. Haying in full swing. Wild hay reported best in memory of 50-year residents. Weather more favorable for curing and stacking. Some winter grain about ready for harvest. Livestock condition excellent. No sales, no government loans reported. \$6.30 per cwt. paid for ewe lambs in one instance, no other sales to report. Labor about balanced. Cricket control work completed. Some natural control evident. No activity on grasshopper control at present.

MISSOULA: Hot and dry all week. No precipitation. Haying in full swing, completed on smaller places and second crop starting on earlier places. Sugar beets and potatoes making good growth. Small grains beginning to ripen, good yield expected. Sour cherries and raspberries coming on market. Surface soil drying out and irrigation in full progress. Irrigation water plentiful now but weather will reduce the supply. Pastures and ranges in good condition. Labor balanced. Serious outbreak of sugar beet webworms threatening crops throughout county.

MUSSELSHELL - GOLDEN VALLEY: Some rain over both counties, very scattered, very little precipitation. Farmers ready to cut barley soon and others will follow with winter wheat. Some winter wheat already being cut. In some areas where there was a light hail, wheat is beginning to straighten up and will make a fair crop. Livestock in good condition. Lots of hay.

PARK: Scattered showers and generally warm. Good growing weather. Crops generally very good. First cutting alfalfa slightly curtailed due to late frost. Some difficulty in stacking hay on account of showers. Winter wheat and barley lodging in places due to excessive moisture. On the whole, wheat crop appears to be best prospect since 1928 and hay considerably above last year. Pastures and range much better than for several years past. All livestock doing fine with abundance of feed. Labor pretty well balanced with slight surplus of transient labor available. Grasshopper and cricket situation not serious unless infestation occurs from outside sources.

PHILLIPS: Moderately heavy showers covering small areas. Warmer. Ideal growing conditions where moisture is plentiful. Prospects for best crop in years but more moisture needed in north part of county. No evidence of hopper damage except in valley, where some poisoning is done. First cutting of alfalfa damaged by rain. Outbreaks of sleeping sickness in horses reported from widely separated communities. Condition of cattle and sheep excellent. Surplus of labor.

PONDERA: Few local showers. Mostly dry and hot. Good growing conditions for wheat, but showing some white caps on tip kernels. Not alarming. Wheat appears to be filling three to the bush at least, and early seeded crops are in the hard dough stage. Turning slightly. High amount of moisture in ground, together with cool night air drainage, indicates a good fill. Feed crop growth so heavy and rank due to moisture and good growing conditions, much of it is beginning to lodge, especially on summer fallowed prepared seed beds. Webworms attacked practically all beet fields, affecting nearly 3,000 acres, as of Saturday last week. Poison supplies hard to get. Worms have done considerable damage to growing beets to the extent of 40 to 50% in western portion of county, and 30% in eastern portion. All types of hay and grasses, according to farmers' reports, show most exceptional growth in their experience, indicating abundant feed supplies not only summer range, but also winter feed reserves. Labor over-supplied.

PRAIRIE: Light thunder shower Monday, very little moisture. General growing conditions satisfactory except for grasshoppers. Hoppers started flying into county on July 8th in immense clouds from southeast. Monday many of them left south side of Yellowstone River and flew to north side. Grasshopper damage to crops, 10% to 100%. Many farmers trying to salvage hay out of their grain crops. Considerable poison being mixed and spread. If hoppers remain here, crops will be total loss. Livestock is in excellent condition. Most of wool has been sold and shipped.

RICHLAND: No precipitation. Hail occurred in western part of county, doing considerable damage and totally destroying some crops. Grasshoppers have started migrating into the county in large swarms from North Dakota. Considerable damage in some fields, but not so much in others, and hoppers seem to be on the move. Great quantities of poison being distributed from mixing stations, and a number of growers have built hopper catchers and are employing both methods together with irrigation water in the valley in an effort to save their crops. Most oats and barley fields are being damaged and are being cut for hay in order to avoid complete



destruction. Some damage being done on some wheat fields with some crops being almost completely destroyed. Barley is also being cut at this time on some land, for the first time in eight or ten years. Blister beetles causing some damage, particularly to beet crops in Savage area. Some growers starting to harvest grain. Corn crops being damaged some by hoppers. Livestock in general good condition.

ROOSEVELT: Heavy showers early in week, warm and clear latter part. Good growing conditions with excellent moisture supply. Early spring grains beginning to ripen. Prospects for good yields where no insect damage. Grasshoppers moving in from southeast in herds during most of week. Majority lighting along Missouri in western section of county where condition is 'very serious. In other sections numbers are less. Poisoning is being done but not with much success against hoppers that have flown in. Harvesting of winter rye under way and some early oats being harvested. Range conditions unchanged. Some cases of horse eccephalomyelitis in eastern section of county.

ROSEBUD: Generally hot and dry. All crops making rapid growth except rye and winter wheat which is mostly ready for harvest. Combining and cutting of winter wheat started. Fair yields and quality reported. Grasshopper migration has covered most of northern half of county. Little damage reported to date except in a few fields of late oats and wheat. Some indication of hoppers taking to flight after short rest. Migration generally westward.

SANDERS: No precipitation. Generally clear and hot. Very good growing conditions but crops will need rain soon on account of extreme high temperatures. Average maximum, 93°, average, minimum 51°. Crop conditions fair to good. Harvesting of winter wheat will start this coming week with yield somewhat below normal. Spring grain well headed out and in very thrifty condition. First cutting hay which was damaged from recent rains is mostly in stack. Second cutting making rapid growth. Potatoes very good condition with outlook for good yield. Gardens generally very good. Livestock in very good condition. Higher ranges very good. Heavy infestation of webworms causing some damage to alfalfa seed and gardens. Some damage from crickets continues requiring continued dusting over infested areas. Grasshopper damage confined to small areas.

SPERIDAN: Weather conditions continue favorable. Heavy rains have occurred in southern part of county first of week. No hail reported. Crops developing nicely. Stem rust reported in few areas but at present no damage from this cause is anticipated. Little damage from locally hatched grasshoppers expected. Livestock conditions continue good. No change in labor situation.

SWEETGRASS: Weather warmer. Trace of precipitation. General growing conditions good due to warmer days and nights. No hail reported. Haying progressing rapidly. Livestock in good condition. Labor unchanged. Crickets under control. Grasshopper situation unchanged.

TETON: Precipitation .5 inch. High temperature for week was 89°, warmest recorded for this season of year. Nights also very warm. In Diamond Valley, having less than half the amount of rain the rest of the county has had, hot weather this week caused considerable white tipped wheat. No precipitation this week in that part of county. Rest of county has had ideal growing conditions. Webworms on the move and doing a lot of damage to gardens in some parts of county. Haying is under way. Wild hay will start this next week. Alfalfa haying, first cutting, is about 70% completed. Wool is being moved to market.

TOOLE: Few scattered showers, and warm. Precipitation .25 at Shelby. All crops in excellent shape. Considerable webworm damage in gardens throughout county. All grasses in excellent shape. Haying operations in full swing. Continued hay hand movement through local Employment Service. Labor supply adequate.

VALLEY: Local showers latter part of last week and first of this week, with some hail north of Frazer and in Lustre communities. Very little damage done. Past three days hot, very little wind. Crops in west and north part of county in excellent shape as far as moisture is concerned. Some crops in southern portion lack moisture. Wheat beginning to fill in good shape. Corn looking good. Sugar beets in most of valley in excellent condition. Some blocking and thinning being done. Few fields having to be abandoned on account of weeds. Bluejoint and western wheatgrass looks like a very good crop will be harvested. Livestock in good condition with abundance of grass and water. One report of sleeping sickness in horses in Theeney community. Herds of migrating grasshoppers moved in eastern and southern portion of county and are doing considerable damage. Poison is available for those who wish to use it. Very little wool sold, offers varying from 17¢ to 20¢. Farmers getting machinery ready in preparation for harvest. Considerable calls for help. Fall rye being cut in some cases. Most of rye will be ready to cut within next ten days.

WHEATLAND: Weather very warm first of week. Cloudy and damp latter part with heavy rain on Saturday. Little hail but causing no damage to crops.

County Summaries of Crop Conditions for the week ending July 16, 1938 - Page 5.

Crops in good condition. Webworms hatching out in large numbers in different parts of county, although there has been no damage reported to crops.

WIBAUX: Hot weather most of week. No precipitation. Moisture sufficient for growth of crops in south half of county. Rains would be beneficial to feed crops in north portion. Grasshopper damage enormous in all parts of county. All leaves stripped and amount of crop depends on how grain will fill and the extent of head damage by grasshoppers. A considerable amount is being cut for hay. Corn crop looking good. Livestock in good condition. Wool pool sold for 19¢ per pound.

DAWSON: Weather hot and dry most of week, cooler somewhat at the end. Severe grasshopper damage, with practically everyone starting to cut crops for feed in order to beat the hoppers to it. Livestock in good condition, with grass and water situation satisfactory.

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Jay G. Diamond, Sr. Agr. Statistician.  
T. J. Kuzelka, Jr. Agr. Statistician.

Helena, Montana  
July 19, 1938



UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Economics — Weather Bureau

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA  
For the Week Ending Tuesday, July 26, 1938

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau,  
Offices: Federal Office Building, Helena, Montana.

Hot, dry, sunny weather during the earlier and greater part of the week was favorable for haying and harvesting operations, as well as for maturing of early small grains. Heat and rapid depletion of soil moisture caused moderate deterioration of late-sown dryland grain crops in northern and central districts before showers and much cooler temperatures during the last three days checked further immediate decline. Winter and early spring grain crops on drylands are about matured or under harvest, but late-sown grains are in need of more rain for maturing. Irrigated crops are generally in good condition and making excellent progress. Extensive use of water has been necessary, but supplies have remained ample. Stem rust has been reported from several eastern counties, notably Daniels, Fallon, Carter, Valley, Prairie, and Roosevelt. Winter wheat, as well as early sown spring wheat are mostly too far advanced for any appreciable rust damage, but late-sown wheat may be somewhat affected, although damage to date appears mostly light. Grasshoppers have caused considerable damage to wheat, oats, barley, and alfalfa in extreme eastern districts, particularly in Richland and Dawson Counties, during the last two weeks, but the situation is now regarded as less acute. Webworms and blister beetles have done heavy damage locally in western counties to sugar beets, flax, mustard, and gardens. Corn developed rapidly during the hot weather, and advanced to the tasseling stage. A "purple top" disease has attacked some potato and tomato crops in southern counties, otherwise these crops, as well as sugar beets, beans, peas, and gardens are reported doing nicely and in good condition.

Harvesting of rye, winter wheat, early spring wheat, barley, and canning peas has started, although general harvesting operations will not be underway for at least another week. Much grain has been cut rather green in several extreme eastern counties to avoid severe grasshopper damage and possible rust effects.

The first crop of alfalfa has finally been put up after much delay and a great amount of damage from continued rains during late June and early July. Wild haying is proceeding vigorously with excellent yields. Cutting of the second crop of alfalfa has started in a few places. Ranges have remained green longer than usual, and continue to afford abundant feed for all types of livestock. Pastures have been drying up in the Flathead district, necessitating feeding of dairy herds for maintenance of milk production. Livestock are in good to excellent condition, except where outbreaks of sleeping sickness have occurred among horses in eastern counties. Some stockmen are planning a moderate amount of restocking during fall as a result of the restoration of good range conditions and the favorable outlook for winter feed.

TEMPERATURE AND PRECIPITATION DATA, WEEK ENDING JULY 26, 1938

Station	Temperature		Sunshine % of Possible	This Week	Total Precipitation	
	Highest	Lowest			From April 1st to date	For Corresponding Period in 1937
Billings	96	54	*	0.44	11.82	6.77
Bozeman	86	45	*	0.06	10.11	8.99
Conrad	*	*	*	0.41	8.94	6.13
Cut Bank	94	44	*	0.39	9.68	5.98
Fort Peck	94	55	*	0.64	7.05	3.82
Glendive	99	53	*	0.84	6.32	6.03
Great Falls	96	51	*	0.02	9.50	4.62
Havre	96	52	66	0.82	8.88	6.64
HELENA	91	50	65	0.01	9.49	4.01
Kalispell	96	48	84	0.05	4.37	5.21
Lewistown	92	47	*	0.43	11.71	5.94
Malta	96	54	*	0.34	9.20	6.45
Miles City	98	53	68	0.09	6.65	5.33
Missoula	100	56	86	0.01	7.18	3.26
Poplar	91	52	*	0.29	9.38	4.80
Stanford	*	*	*	1.12	12.23	5.28
Average				0.37	8.91	5.58

\* NO DATA.

W. E. Maughan, Weather Bureau,  
Jay G. Diamond, Bur. Agric. Economics.

The following summaries of Crop Conditions for the week ending July 23, 1938 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Very little precipitation. Scattered showers first of week, temperatures much warmer. Haying in full swing in Beaverhead Valley and Horse Prairie district. Crops in good condition, growing conditions good. Shearing completed. Activity in wool slow. Moving sheep to reserve. Range grass good. Sugar beet webworms reported causing small damage to few crops in Beaverhead Valley.

BIG HORN: Light showers helped continue excellent growing conditions. Higher temperatures prevailed most of week, which has had tendency to ripen grain. Combining general over county. Some grain cut with binder before ripe enough for combine. Beets making splendid progress. Second crop alfalfa hay ready to cut. All cultivated crops making good progress. Purple Top in potatoes appearing. Range and livestock in good condition. Labor ample. Cricket control still under way. Very little grasshopper infestation.

BLAINE: One good shower in central and northern part of county Monday night. Balance of week clear, sunshiny days with moderate temperatures. Crops in excellent shape in all parts of county. Some damage to sugar beets by blister beetles and webworms. A few migratory hommers landed in vicinity of Turner Sunday but not enough to do any particular damage. Livestock and range in excellent condition.

CARBON: Heavy rains reported in all parts of county. Hail reported in Bridger and Round Butte section with damage to crops in limited areas. Hottest temperatures so far this summer reported this week. Cutting of winter wheat and spring grain commenced both in irrigated and dryland sections. Haying continues in western portion, where hay is composed of grasses and legumes. Crops, particularly beets, beans and corn which were hailed out, are making very rapid recovery, although there is some question whether the bean crop will mature. Livestock condition is excellent.

CASCADE: Hot weather has made ideal growing conditions and provided excellent weather for maturing winter wheat and filling spring wheat which is now in full bloom. Farmers still busy putting up hay and preparing for harvest. Livestock in excellent condition. Labor normal. Some damage from webworms during past week. Crickets continue to harass farm crops but no great amount of damage has been done.

CHOUTEAU: Three hot days have speeded ripening of grain. No precipitation. Late seeded spring wheat being damaged by hot winds. Few fields of grain harvested, but will be in full swing middle of next week, in winter wheat areas. Spring wheat from seven to ten days later. Heat will no doubt cut spring wheat yields considerably.

CUSTER - POWDER RIVER: Warmer with few light local showers. Growing conditions good. Irrigated crops continue good growth since grasshopper menace has passed. Irrigated grains now being harvested. Harvest of dryland grains that survived insect damage now starting. Yields fairly good. Haying continues in full force. Ranges mostly dry but grass is cured and stock water plentiful. All cattle and sheep gaining.

DANIELS: Over .5 inch rain in most parts of county as result of scattered thunder showers. Few fields damaged severely by hail. Weather generally cool with little or no wind. Fall rye ready to harvest with high yields expected. Early wheat filling satisfactorily. Considerable rust showing up in later seeded wheat, and indications point toward reduced yields because of rust. Grasses producing abundance of seed and range land still green, which is unusual for this time of season. Labor situation unchanged. Little or no damage from grasshoppers with poisoning campaign still in operation.

DAWSON: Scattered showers early in week followed by warmer weather and closing rather hot and dry. Most oats and barley have been or are being cut for feed where hopper damage at all justified, this including a rather high percentage of the total acreage. Scattered fields of corn have been badly damaged by hoppers, although the bulk remains in rather good condition and should produce feed. Some binding of wheat has been started in an attempt to beat the hoppers, with probabilities of earlier fields producing reasonably good quality grain. Livestock in good condition. Grasses generally seeded heavily this year and grama is just now coming into blossom. Hoppers will destroy quite a large percentage of heads, but there should still remain a rather heavy seeding. Grasshopper damage has undoubtedly slackened to some extent as the droves are less concentrated than a week previous. They cover the entire county and continue to work on crops.

FALLON - CARTER: Slight precipitation, .05 inch. Poor to fair growing conditions. Black stem rust noticed generally in Fallon County. Expect most grain too far advanced to do much damage. It appears that rust will damage some late wheat plantings. Fair grain harvest expected in some localities in Fallon

(Continued on Page 2.)



County. Crop conditions poor in middle Carter County. Some areas in Carter lack moisture. Livestock in fair to good condition. Several cases of sleeping sickness reported.

FERGUS: Hot dry weather. Highest temperature of year reached. Winter wheat has matured rapidly with combining expected to start about first of August. Spring wheat also maturing rapidly but possibly too fast for maximum yields. Some reports of burning in Winifred and Grass Range areas and Hoosac community. Late spring wheat will need more moisture but early spring wheat and winter wheat in most areas should get by without further rain, but with possible slight reduction. Hail streak from Arrow Creek through Kolin, slightly east of Moore, and on to mountains in strip about a mile to mile and a half wide on the average. Fields damaged all the way from 100% in center, possibly half to three-quarters of a mile wide, to no damage on edges. Alfalfa hay produced very well with last ten days being ideal weather, and a lot of hay has been put up in very nice shape. Wild hay being put up now. Livestock in excellent condition with more grass than will be used in all parts of county. Expect moderate restocking this fall, but liberal plan of financing for this restocking would be necessary. Cricket control satisfactory with work expected to stop about August 1. Grasshoppers around edges of fields doing some damage to leaves with poisoning being done in several sections. No crop losses reported from hoppers, no movement of hoppers reported.

FLATHEAD: Clear and hot, no precipitation. Growing conditions excellent fore part of week. Latter part, crops showed indications of maturing too rapidly and additional moisture and cooler weather would be very beneficial to all crops. Pea harvest started with comparatively low yields. Some barley cut and winter wheat harvest will commence next week. Pastures drying up and considerable feeding being done by dairymen in an effort to keep up milk production. Range livestock in good condition. Labor plentiful.

CALLATIN: Weather generally clear, no precipitation except for light shower Saturday. Winter wheat ripening rapidly and cutting started with binders this week. Yields promise to be much above that of average for last five years. Spring wheat headed out, also with promise of heavy yield. Moisture conditions excellent, both dry and irrigated sections. No change in irrigation water and sufficient soil moisture in dry area to mature winter wheat. However, with no additional moisture, spring wheat may be damaged. Haying completed after considerable delay due to showers. Canning pea harvest started. Pasture and range land remains in excellent condition with many of grasses still green.

GARFIELD - PETROLEUM: Precipitation included showers in scattered areas of both counties. General growing conditions good, however, additional moisture is desirable. Crop conditions good in western Garfield and Petroleum generally. Grasshopper damage has occurred in eastern two-thirds of Garfield and is severe in Cohagen area. Damage now ranges from 30 to 50% in infested areas. Numerous fields damaged 100%. Considerable late seeded crops have been harvested for hay in immature stage. Sheep and cattle conditions continue very favorable. Sleeping sickness in horses has become prevalent almost over entire area and numerous losses have been reported.

GLACIER: No precipitation. Hot, with dry winds most of week. Nights cool. Temperatures around 90° and above in the shade, during day. Growing conditions generally fair, some crops show effect of hot winds. Crop conditions generally good. Winter wheat beginning to turn. Second cutting alfalfa on early fields about 1½ feet high. Pastures generally in good shape although some are beginning to dry. Grasshopper poison still being put out in few areas, with good results where work is being done. Considerable webworm damage experienced in Cut Bank and on some of the farm gardens. Webworms did slight damage on edges of grain fields. Livestock in excellent shape.

HILL: Precipitation .13 inch. Extreme warm weather has hastened ripening of grain and caused considerable burning of late crops. Continued hot, dry weather is reducing anticipated yields rapidly. Ranges and livestock in good condition. Labor balanced.

JUDITH BASIN: Precipitation slight and scattered. Hail moderate to destructive in Denton and Arrow Creek communities. Temperatures high. Haying in progress after much delay on account of wet weather. Considerable amount of hay spoiled during previous two weeks. Grasshoppers appearing in some areas. Very little demand for poison. Livestock in excellent condition on the range.

LAKE: Scattered showers. Weather rather hot. Light hail in two communities but no damage. Harvesting of rye, wheat and barley starting on many farms. Second crop alfalfa being harvested in Moiese district. Ranges and livestock in excellent condition. Sugar beet webworms and fall army worms doing considerable damage to crops in different sections. Grasshoppers dying in large numbers because of disease and parasites.



LEWIS & CLARK - BROADWATER: Warmest weather to date this year, causing soil moisture to evaporate rapidly. Crops showing effect of warm weather with some warm winds. Unless relieved by rain some crop yields will be reduced. More irrigating being done now than at any time during season. While not serious, webworms are doing some crop damage in both counties. Gardens have been damaged the most, winter wheat and rye harvest will start soon. Grasses ripening fast. Abundance of grass all over. Some grasshopper poisoning being done in scattered areas.

MADISON - JEFFERSON: Slight precipitation Saturday. Growing conditions excellent. Weather hot, no wind. Excellent crop conditions, with winter grain and some spring grains ripening rapidly. Some rye being harvested and winter wheat almost ready to cut. Sugar beet webworms prevalent over very large area in both counties and doing considerable damage. Blister beetle also causing some damage in beet fields. Grasshoppers reported dying off in large numbers in North Boulder area. First crop of hay practically all in stack. Some crops getting quite dry. Stock and range conditions remained excellent with some moisture needed for the range.

MEAGHER: Few scattered heavy showers. Weather much warmer. Growing conditions continue excellent. Heavy hay crop reported. Winter grain harvest begun. Weather now permitting good progress on harvest. Livestock conditions excellent. Few wether lambs sold at 6 $\frac{1}{2}$ ¢. One bunch mixed yearling cattle (light weight) at 7¢. Labor supply and demand about equal. Grasshoppers beginning to do a little damage. Heavy infestation of beet webworms, no important damage to date except to gardens. No wholesale control being carried on.

MISSOULA: Hot and dry all week. No precipitation. Small grains ripening. Harvest probably will start next week. Yield prospect fair to good. Haying in full swing. Most of first crop alfalfa in stack. Cutting second crop has started in some localities. Yields generally good. Sugar beets damaged severely by webworms. Ranges and pastures in good condition. Webworm infestation decreasing.

MUSSELSHELL - GOLDEN VALLEY: Local showers on 18th, warm winds Thursday and Friday. Harvest progressing, much barley being cut now. Winter wheat harvest will be in full swing in about ten days. Oats ripening very fast. Livestock in very good condition. Number of cattle in Musselshell County has increased materially in last two months, as many ranchers are beginning to restock after their sellout in 1936.

PARK: Warm weather prevailed. All grains growing well with some starting to mature as result of warmer weather. First crop hay mostly in stack but previous wet weather caused some spoilage and delay. All crop prospects best in several years. Livestock in excellent shape due to rank growth of grass. Quite serious outbreaks of grasshoppers doing some damage. Poison program proceeding on small scale.

PHILLIPS: Local showers covered large area varying from .5 to 1 inch, with .91 inches at Malta. Warm. Good growing conditions where there is plenty of moisture. Crop conditions very good in most parts of county. Some damage to wheat from burning reported in extreme northern part. First cutting of alfalfa about completed. Some migratory grasshoppers landed in county on 16th. Slight damage in some sections, mostly eastern part. Several cases of sleeping sickness in horses in various communities, majority in northern part. Condition of sheep and cattle very good. Surplus of labor.

PRAIRIE: Hail on Broadview Bench and Mildred area. No precipitation in rest of county. Weather hot and dry, ripening wheat rapidly. Many farmers are heading wheat and many fields will be ready for combine next week. Grasshoppers still doing considerable damage, and webworms present in considerable numbers. Black stem rust is a threat to all later wheat fields. Livestock continue to improve.

RICHLAND: Slight precipitation fore part of week. Latter part of week real cool. Ho pers migrating in large numbers, doing tremendous damage. Many fields of oats and wheat completely destroyed; damage on oats estimated 40 to 100%, wheat 25 to 100%. Estimated that for entire county, oat crop yield has been reduced about 65% and wheat around 50%. Every grower doing everything he can to combat invasion, by spreading poison, as well as cutting grain before hoppers could take it all. Most grain not ripe enough for combines, so binders and headers have been used. There will be some shrinkage in grain due to being cut too green. Fields left to ripen further have been practically totally destroyed. It is believed peak of invasion has passed. Many growers report good results with poison but it is impossible to stop hoppers that are continually migrating into the county. Several grasshopper catchers, using distillate, being used particularly by valley farmers on their beet cultivators and other machinery. Much oats cut for hay. Varied degrees of damage done to other crops such as beets and corn. Second growth of alfalfa delayed by hoppers. Over 600,000 lbs. poison has been distributed to date.



Due to invasion, credit has become very tight and farmers find it difficult to secure credit for purchase of binder twine and necessary repairs for trying to salvage crops. Livestock ranges far enough along to give abundance of feed for all classes of livestock. Surplus of labor is being absorbed in harvest fields.

ROOSEVELT: Warm, trace of precipitation. Weather conditions favorable for maturing grain crops. Stem rust developed rapidly first two days of week with warm damp weather. Many late seeded fields in most sections are badly infected with prospects of yielding little of rust develop normally. Early seeded grain infested with rust in most cases but damage expected to be light in those fields. As yet wheat fields are not seriously damaged, except in central section along the Missouri where some yields will be cut in half through grasshopper damage. If infestation remains in eastern section, serious losses expected. Most oat and barley fields being harvested where hopper infestation is heavy. Corn and other feed crops generally making excellent growth with little hopper damage at present. Livestock continue in excellent condition. All range grasses, but particularly gramma, producing large amounts of seed. Heavy grasshopper infestation coming into county on 22nd, particularly in eastern section. In central and western section, hoppers are leaving.

ROSEBUD: Weather cool first of week, increased temperatures last three days. Winter wheat harvest general throughout county. Oats and late spring wheat being cut for hay to get ahead of hoppers. Corn making rapid growth, most fields tasseling out. Cutting of wild hay getting under way. Grasshoppers continued on move during week. Crop losses rather severe in northern part of county. Bait going out in larger volume, mostly in alfalfa seed areas. Condition of all livestock continues to improve with ranges generally remaining green. Several bunches of mixed lambs contracted during week at 6 $\frac{1}{2}$ ¢.

SANDERS: No precipitation. Clear, hot, extreme temperatures with hot winds causing crops to ripen rapidly and deplete soil moisture. General crop conditions fair. Winter wheat harvest started with yield somewhat below normal. Spring grain fair and starting to ripen but needing rain. Second cutting hay well advanced but short crop on account of low soil moisture. Livestock in good condition on higher ranges; lower ranges badly dried out. Cricket control continues where crop damage is experienced. Grasshopper control work in small scattered areas.

SHERIDAN: Scattered showers throughout county, followed by warm weather with little wind. Growing conditions favorable. Warm moist weather very favorable to development of rust in wheat. Late seeded fields will unquestionably be damaged by rust which is developing very rapidly at this time. Early seeded fields have possibly advanced to a stage where rust will not materially influence the yield or quality of crop produced. Up to present time, grasshopper damage has not been serious. Control measures have held locally hatched hoppers in check, so serious damage is not anticipated. Migration of foreign hoppers has occurred in parts of the county, with some damage reported in these areas. Unless further migration occurs, extensive damage is not anticipated. Livestock conditions continue favorable. Native grasses have developed well and natural reseeding is occurring in all parts of county. Increase in demand for farm labor. Rust in wheat has stimulated use of binders in harvesting, with consequent increase in demand for harvest hands. Local supply sufficient at present time.

STILLWATER: Extremely hot on several days, high temperature was 97°. .05 inch precipitation at Columbus. In general, crop conditions are favorable. Hot weather has ripened grain very fast and harvesting is starting in some dryland sections. Some reports of potato fields becoming infested with purple top and a similar condition is affecting tomatoes. Past week favorable for haying. Beets making rapid growth, although there has been some damage from beetles and other insects. Grasshoppers appearing in some parts of county but little damage as yet. Mormon crickets practically under control with operations closing down in several localities. Considerable damage being reported from the insect causing purple top. Webworms and whitefly also being reported working on beets. Livestock generally in good condition. No surplus of labor.

SWEETGRASS: Clearer and warmer, allowing haying to proceed satisfactorily. Slight precipitation. General growing and ripening conditions excellent. Early seeding of winter grain being harvested, balance ripening fast. Early spring grain practically headed. Later spring crops starting to head. All in good color. Most alfalfa hay up. Wild and tame hays being harvested. Livestock doing well. Wool all sold and shipped. Some contracting of lambs. Labor situation unchanged.

TETON: Temperatures ranged in high 80's all week, high on Friday of 93° which is highest for this season. Heat is beginning to affect crops. Wheat commencing to turn prematurely due to dry weather. Webworms continue to take gardens and many fields of flax and mustard have been destroyed. Very little grasshopper damage to date, although a few have been reported in Bole-Cordova and Farmington areas. Cutting of wild hay under way practically all over county, with first cutting alfalfa

completed. Wild hay reported to be twice as heavy as last year in some localities. Highest price paid for wool in this locality is 21 5/8¢ with several sales reported the past week from 20 to 21¢.

TOOLE: Hot and dry. Temperatures reached highest point for this year. Some fields have started firing and a good rain would be beneficial in some sections. Most crops holding up well. Webworms and blister beetles working in great numbers throughout entire county. Webworms have stripped some of outer edges of wheat and mustard fields. Two cases known where webworms actually cut down wheat, but total damage was not to exceed 25 acres. Some contracting of lambs at higher figure than earlier in year. Considerable wool still being sold from 18 to 20¢. Grass, range and water good.

VALLEY: Scattered showers with some hail reported in Grain area. Temperatures generally high. Crop conditions favorable. With high temperatures and showers, grain is turning fast. Some rust reported but no apparent damage. Grasshoppers continue to move into county, but do not extend to northern half. Poison available but very little being moved. Damage is very spotted, however, in some sections considerable damage was reported. Farmers in infested area beginning to cut oats and other crops in effort to save at least some hay. Bluejoeing haying well under way, with reports of crop being twice, or even more, that of last year. Livestock in good condition with grass looking good. Some sleeping sickness reported.

WHEATLAND: Continued warm weather. One heavy rain and some light showers, with hail in Judith Gap area but no damage to crops. Dryland crops exceptionally good. Small area in southwestern portion is in need of some moisture to make crop conditions good. Large amount of webworms general over county, but no great damage reported other than of gardens being destroyed. Some grasshoppers in southeast part of county, but little or no damage being done.

WIBAUX: Weather hot most of week. Grain ripening fast. Oats and barley generally being cut because of grasshopper damage. Some wheat being harvested early because of grasshoppers cutting heads and also because of rust. There is considerable rust in some fields, and fields affected are not ripening properly. Grasshopper damage in barley and oat fields from 20% to 100%, in wheat fields a few to 80%. Average in county may reach 50 to 60%. Some corn fields reported damaged by hoppers. Corn, millet, and gardens beginning to show effects of drouth in north half of county. Ranges still in good condition and livestock doing well. Large shortage of labor.

YELLOWSTONE: Precipitation .54 inch. Weather hot, nights fairly cool. Growing conditions excellent. Practically all irrigated winter wheat in shock. Some irrigated spring wheat being cut. Some dryland winter wheat also in shock, and combining will start next week. Some second cutting alfalfa done. Haying will start middle of next week. Potatoes all affected by purple top. Spraying in progress throughout county. Potato crop will be at least 50% under normal yield in county. General movement of crickets in northward and egg laying started. Control work being carried on with tin barrier and oil as the principal methods of control. Livestock in excellent condition. Some wether lambs contracted at 5 1/2 to 6¢. Best range conditions as far as feed and water is concerned, in years. Surplus of labor.

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Helena, Montana, July 26, 1938